APPARATUS, SYSTEM, AND METHOD FOR COMMUNICATING A BINARY CODE IMAGE
Brian J. Corcoran, et al
IBM Docket No.: TUC9-2003-0130 (JMB)
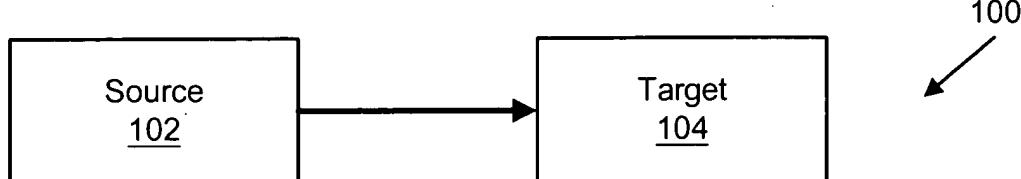**Kunzler & Associates Dock t No.: 1500.2.32**

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100

Source 102	→	Target 104

FIG. 1

200

202	Type
204	Length
206	Address
208	Data
210	Checksum

Prior Art

FIG. 2

300

302	S0 Starting Record (optional)
304	S3 Data Record (32-bit address)
304	S3 Data Record (32-bit address)
304	S3 Data Record (32-bit address)
306	S7 Ending Record

Prior Art

FIG. 3

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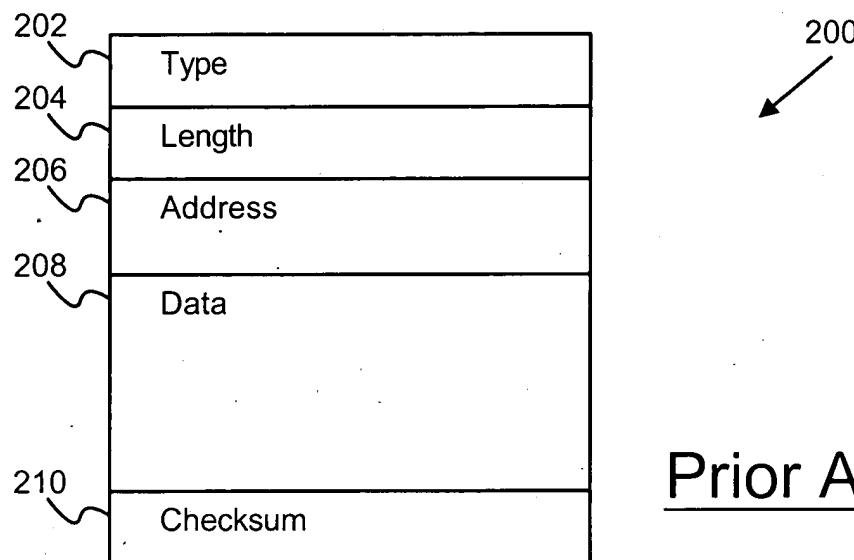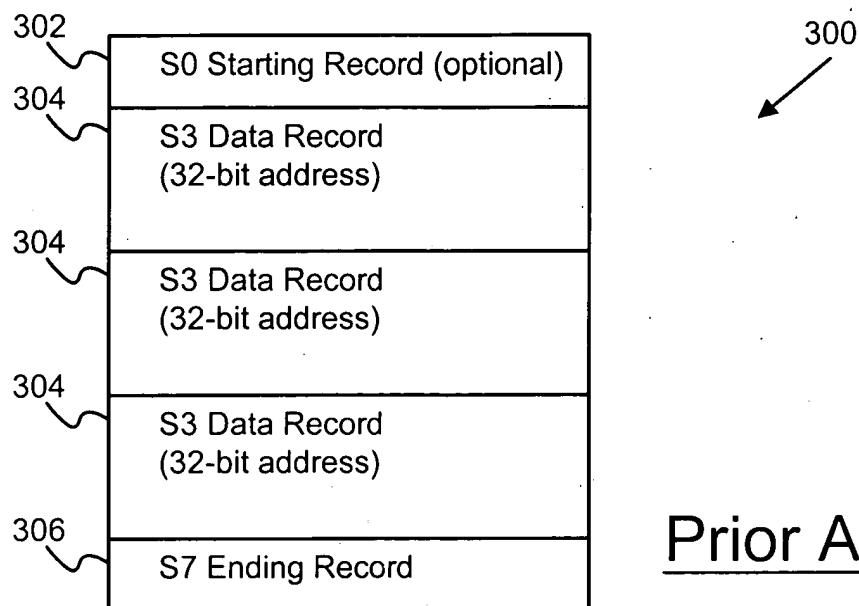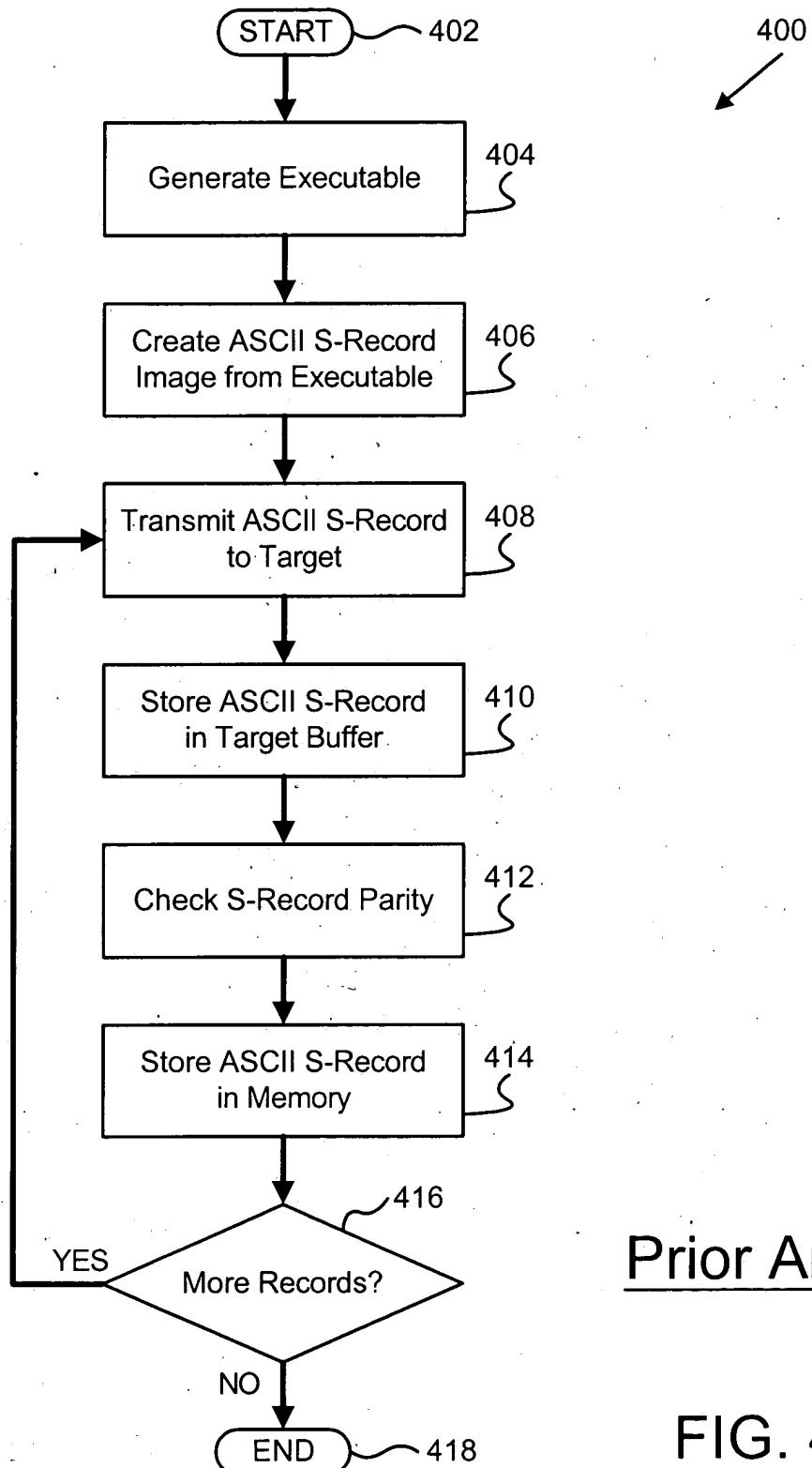**Kunzler & Associates Docket No.: 1500.2.32**

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START ~402

400

Generate Executable — 404

Create ASCII S-Record
Image from Executable — 406

Transmit ASCII S-Record
to Target — 408

Store ASCII S-Record
in Target Buffer — 410

Check S-Record Parity — 412

Store ASCII S-Record
in Memory — 414

416

YES — More Records?

NO

END ~418

Prior Art

FIG. 4

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```
            ( START )     502                    500
                │
                ▼
        ┌─────────────────┐    504
   ┌───→│  Parse S-Record │
   │    └─────────────────┘
   │             │
   │             ▼
   │    ┌─────────────────┐    506
   │    │ Convert Size Indicator │
   │    │    to Binary    │
   │    └─────────────────┘
   │             │
   │             ▼
   │    ┌─────────────────┐    508
   │    │ Convert Address Indicator │
   │    │    to Binary    │
   │    └─────────────────┘
   │             │
   │             ▼
   │    ┌─────────────────┐    510
   │    │  Convert Data   │
   │    │    to Binary    │
   │    └─────────────────┘
   │             │
   │             ▼
   │    ┌─────────────────┐    512
   │    │ Store Data in Memory │
   │    │  at Memory Address │
   │    └─────────────────┘
   │             │
   │             ▼        514
   │ YES      ◇ More Records? ◇
   └──────────
                │ NO
                ▼
            ( END )    516
```
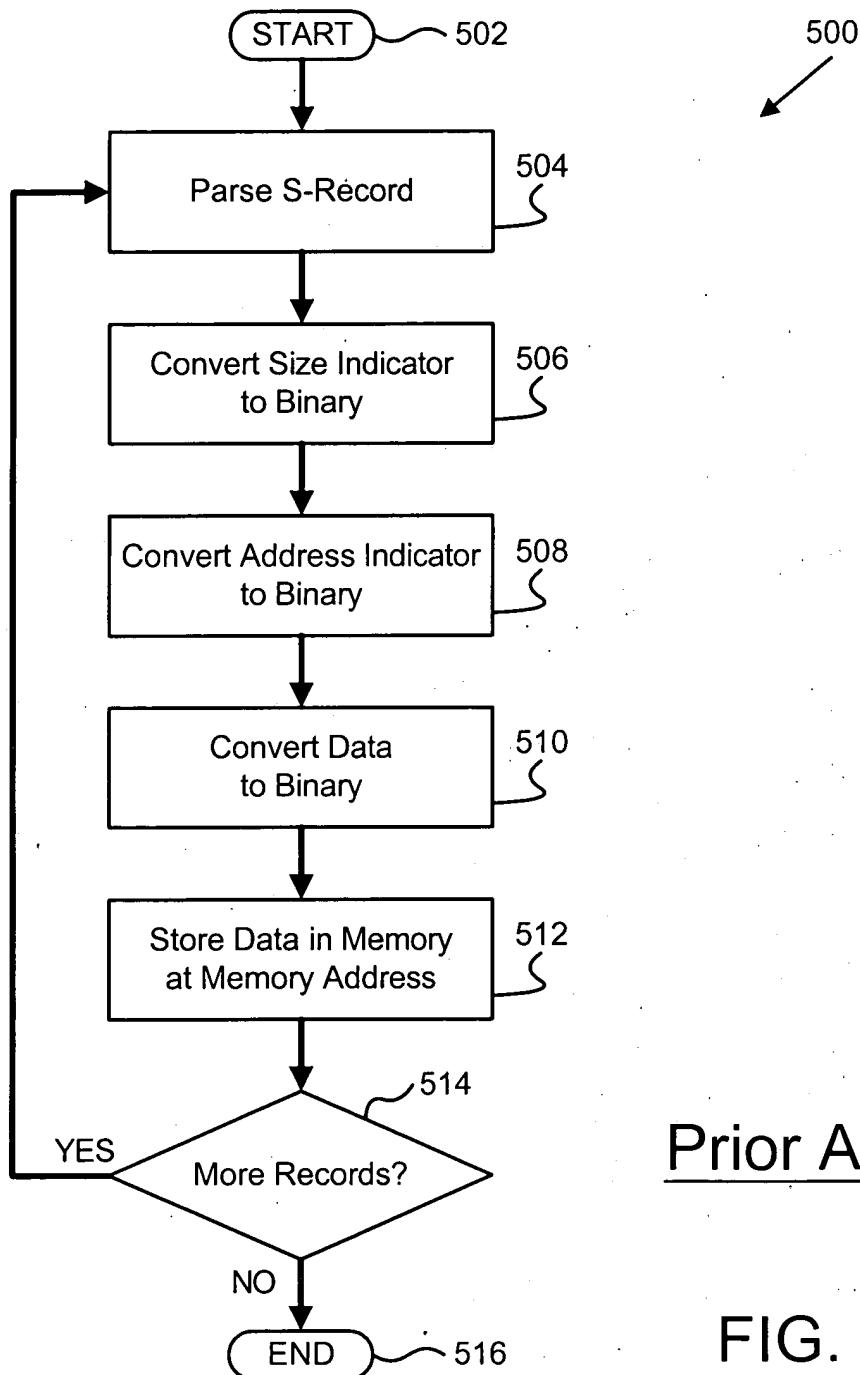
Prior Art

FIG. 5

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IBM Docket No.: TUC9-2003-0130 (JMB)
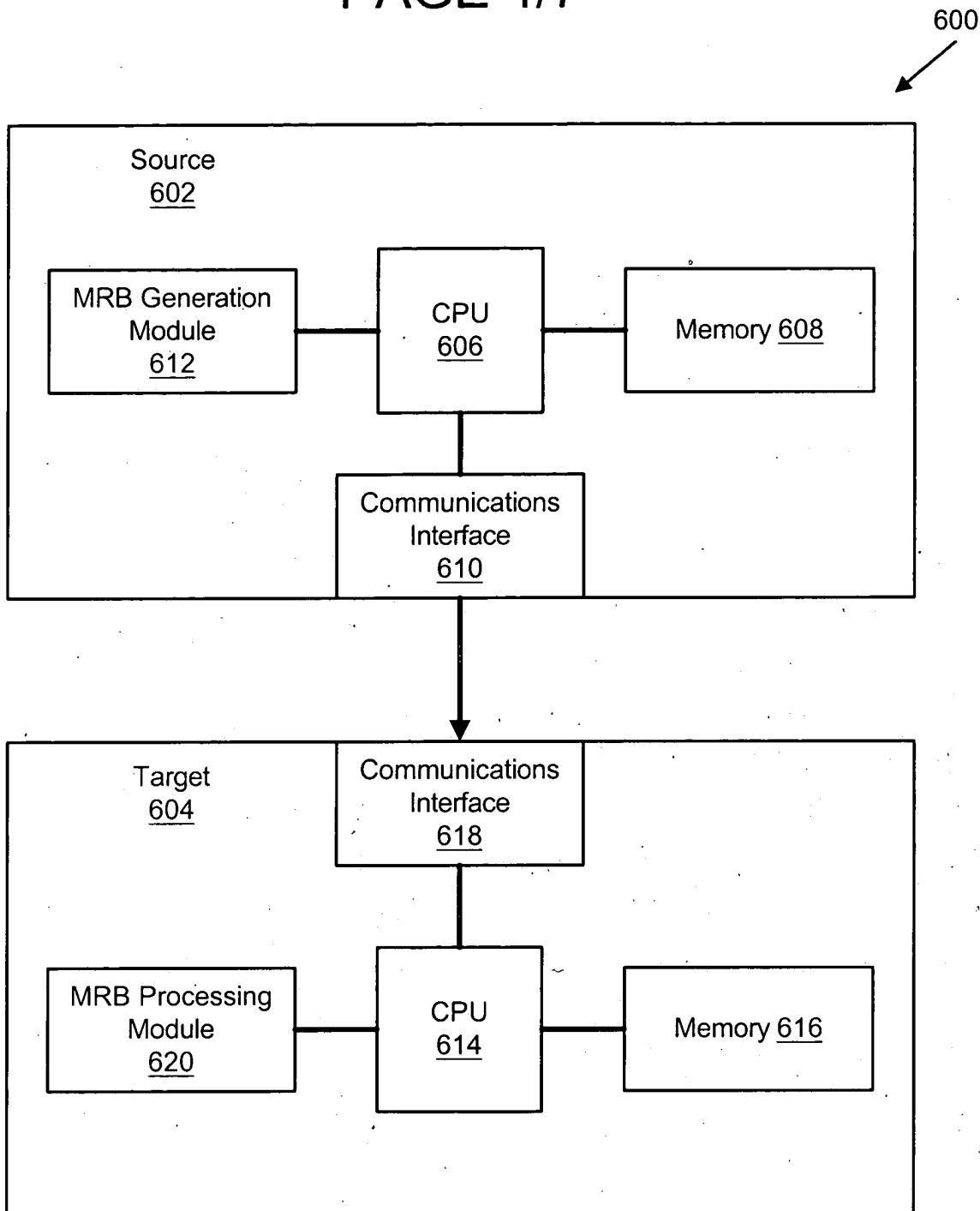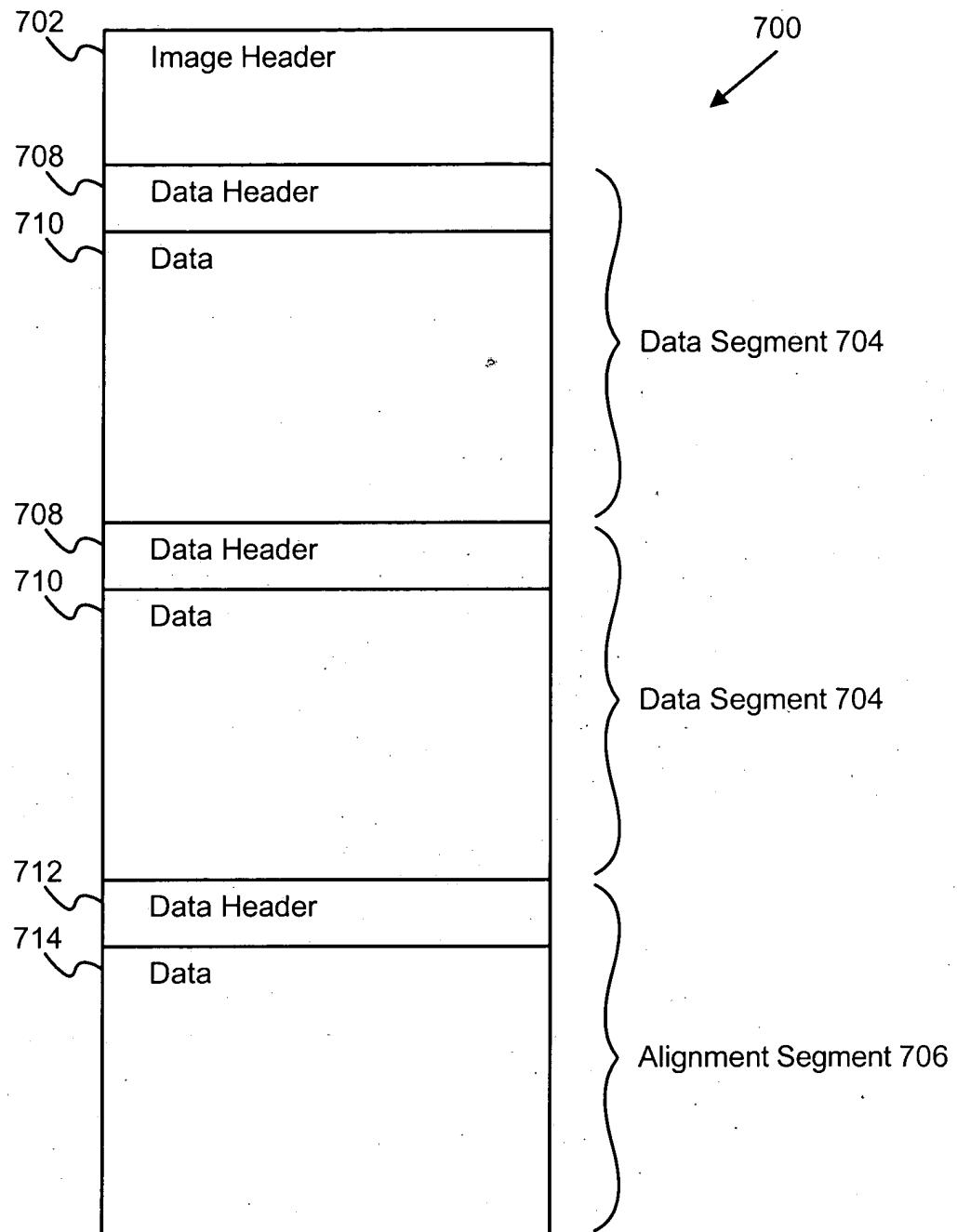Kunzler & Associates Docket No.: 1500.2.32

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600

Source
602

MRB Generation
Module
612

CPU
606

Memory 608

Communications
Interface
610

Target
604

Communications
Interface
618

MRB Processing
Module
620

CPU
614

Memory 616

FIG. 6

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702 — Image Header

700

708 — Data Header

710 — Data

Data Segment 704

708 — Data Header

710 — Data

Data Segment 704

712 — Data Header

714 — Data

Alignment Segment 706

FIG. 7

APPARATUS, SYSTEM, AND METHOD FOR COMMUNICATING A BINARY CODE IMAGE
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IBM Docket No.: TUC9-2003-0130 (JMB)
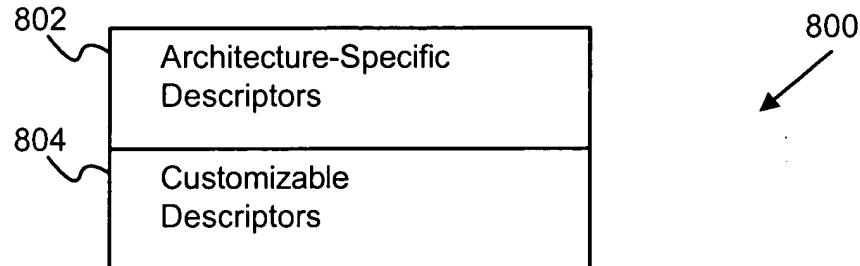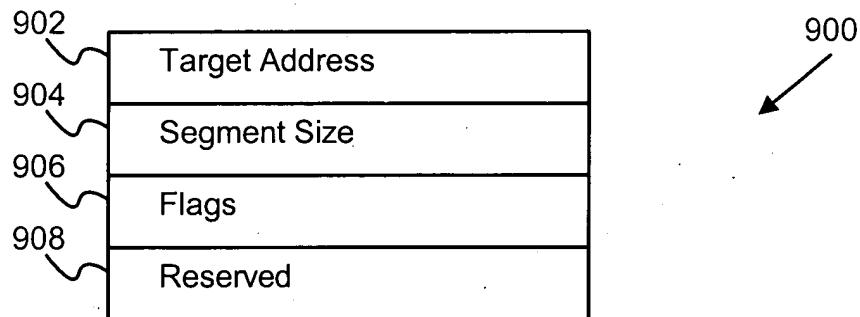Kunzler & Associat s Docket No.: 1500.2.32

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802

| Architecture-Specific Descriptors |
| Customizable Descriptors |

804

800

FIG. 8

902

| Target Address |
| Segment Size |
| Flags |
| Reserved |

904

906

908

900

FIG. 9

1002

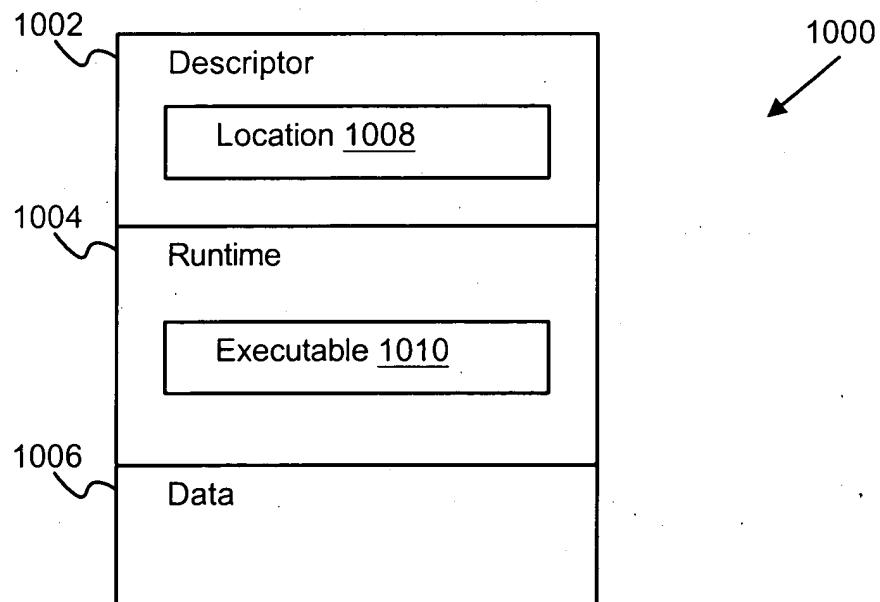| Descriptor |
| Location 1008 |
| Runtime |
| Executable 1010 |
| Data |

1004

1006

1000

FIG. 10

APPARATUS, SYSTEM, AND METHOD FOR COMMUNICATING A BINARY CODE IMAGE
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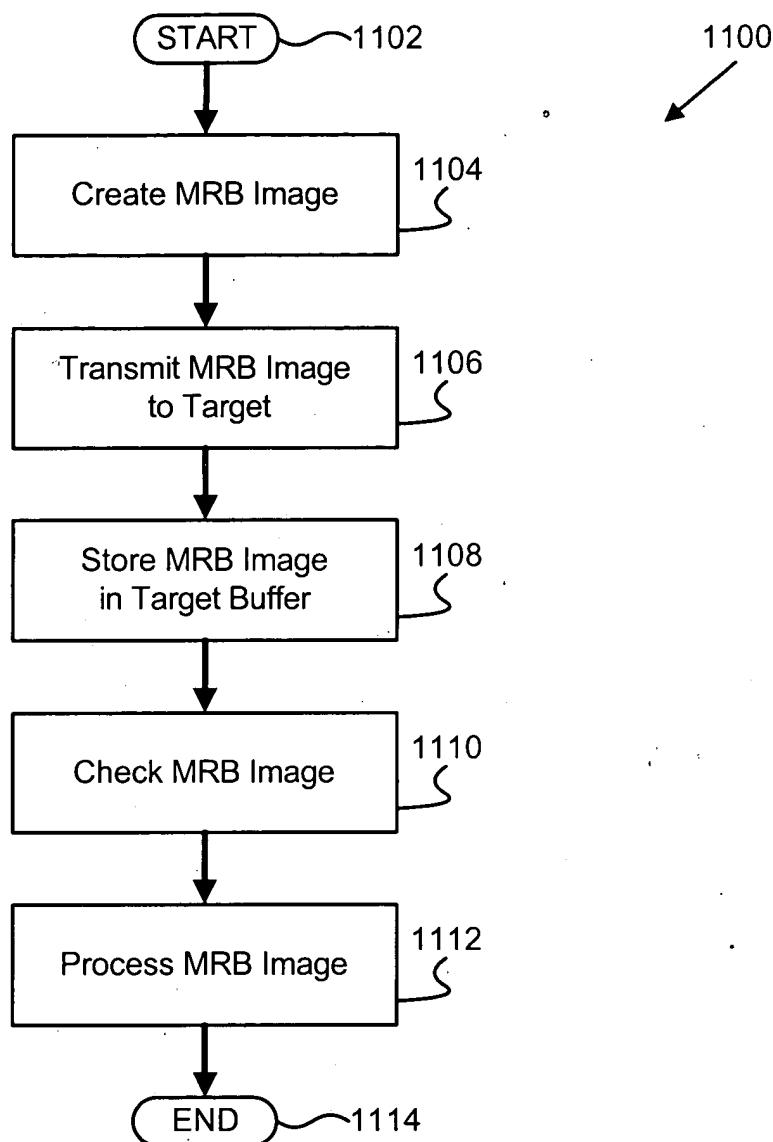Kunzler & Associat s Docket No.: 1500.2.32

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START ⌇1102   1100

Create MRB Image ⌇1104

Transmit MRB Image to Target ⌇1106

Store MRB Image in Target Buffer ⌇1108

Check MRB Image ⌇1110

Process MRB Image ⌇1112

END ⌇1114

FIG. 11